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LOO, JUVENA W				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/743,358

Applicant(s)

ZIMLER ET AL.

Examiner

JUVENA W. LOO

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6, 8, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Prakash (US 2002/0097727 A1).

Prakash discloses the utilization of an non-QOS guaranteed network within a communication network to increase bandwidth when necessary comprising:

Regarding claim 1, *a method of providing communications services, comprising:*

logically bonding a first physical medium to a subscriber's communications device (Prakash: see Figure 1C, 118, 120, 122, and 124; see also "The system includes a transmitting location...guaranteed data transmission" in page 2, section 0019);

connecting a second physical medium to the subscriber's communications device (Prakash: see Figure 1C and "In addition to the main data...of the non-QOS guaranteed connection" in page 2, column 0020);

connecting the second physical medium to other subscriber's communications devices (Prakash: see Figure 1C and "In addition to the main data...of the non-QOS guaranteed connection" in page 2, column 0020);

sharing the second physical medium amongst the subscriber and the other subscribers (Prakash: see Figure 1C and "In addition to the main data...may be a part of the present system" in page 2, column 0020);

receiving a request for communications service from the subscriber's communications device (Prakash: see Figure 2B and "As illustrated in FIG. 2B...the contents requested by individual viewing location" in page 3, section 0038);

when the requested communication service exceeds an available bandwidth of the first physical medium, then temporarily logically bonding the second physical medium to the subscriber's communications device to provide additional bandwidth, such that first physical medium and the second physical medium share a session of information (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041);

providing the requested communications service via the logically bonded first physical medium and the temporarily logically bonded second physical medium (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); and

when the additional bandwidth is no longer needed, removing the temporary logical bonding of the second physical medium (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); and

reverting the second physical medium to its shared configuration, thus allowing another subscriber to receive increased bandwidth when required (Prakash: see Figure

2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 6, *further comprising temporarily logically bonding additional physical media, each additional physical media dynamically shared to provide additional bandwidth* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 8, *further comprising temporarily logically bonding n physical media, such that first physical medium and the n physical media share the same session of information* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 15, *A method of providing communications services, comprising:*

receiving a request for communications services from a client communications device (Prakash: see Figure 2B and "As illustrated in FIG. 2B...the contents requested by individual viewing location" in page 3, section 0038);

logically bonding a first physical medium to the client communications device (Prakash: see Figure 1C, 118, 120, 122, and 124; see also "The system includes a transmitting location...guaranteed data transmission" in page 2, section 0019);

temporarily logically bonding a second physical medium to the client communications device, the second physical medium being dynamically shared amongst multiple client communications devices to provide additional bandwidth when required (Prakash: see Figure 1C and "In addition to the main data...may be a part of the present system" in page 2, column 0020; see also Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041);

providing the communications services via the logically bonded first physical medium and the second physical medium (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); *and*

when the additional bandwidth is no longer needed, reverting the second physical medium to its shared configuration, thus allowing another customer to receive increased bandwidth when required (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 16, *a method of providing communications services, comprising:*
receiving a request for communications service (Prakash: see Figure 2B and "As illustrated in FIG. 2B...the contents requested by individual viewing location" in page 3, section 0038);

downloading media content in response to the requested communications service (Prakash: see Figure 1A and "FIG. 1A illustrates the...able to reconstruct the data" in page 1, section 0016 through page 2, section 0017; see also "The transmitting location...resume normal rate of data transmission" in page 2, section 0021 through page 3, section 0037);

when the requested communications service exceeds an available bandwidth of a first physical medium, then temporarily logically bonding a second physical medium to provide additional bandwidth (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041);

downloading the media content via the first physical medium and the temporarily logically bonded second physical medium (Prakash: see Figure 1A and "FIG. 1A illustrates the...able to reconstruct the data" in page 1, section 0016 through page 2, section 0017; see also "The transmitting location...resume normal rate of data transmission" in page 2, section 0021 through page 3, section 0037; see also Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); and

when the additional bandwidth is no longer needed, reverting the second physical medium to a shared configuration, thus allowing another requestor to receive increased bandwidth when required (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prakash (US 2002/0097727 A1) in view of Gerszberg et al. (US 6,452,923 B1).

Prakash discloses the claimed limitations in paragraph 2 above. Prakash does not disclose the following features: regarding claim 2, wherein logically bonding the first physical medium comprises logically bonding a twisted pair; regarding claim 3, wherein logically bonding the first physical medium comprises logically bonding a coaxial cable; regarding claim 4, wherein logically bonding the first physical medium comprises logically bonding a fiber optic cable; regarding claim 5, wherein providing the requested communications service comprises transmitting signals via at least one of i) a combination of a twisted pair and a coaxial cable, ii) a combination of a twisted pair and a fiber optic cable, and iii) a combination of a coaxial cable and a fiber optic cable; regarding claim 7, providing the requested communications service comprises transmitting signals via a shared twisted pair.

Gerszberg et al. discloses a twisted pair and/or coaxial cable fed, integrated residence gateway controlled set-top device comprising the following features:

Regarding claim 2, *wherein logically bonding the first physical medium comprises logically bonding a twisted pair* (Gerszberg: see Figure 12, 620 and "the NIU 600 may...twisted pair cabling" in column 22, lines 49 – 62).

Regarding claim 3, *wherein logically bonding the first physical medium comprises logically bonding a coaxial cable* (Gerszberg: see Figure 12, 630 and "a cable 630...set-top and/or a TV 514).

Regarding claim 4, *wherein logically bonding the first physical medium comprises logically bonding a fiber optic cable* (Gerszberg: see Figure 1E, Fiber Access).

Regarding claim 5, *wherein providing the requested communications service comprises transmitting signals via at least one of i) a combination of a twisted pair and a coaxial cable, ii) a combination of a twisted pair and a fiber optic cable, and iii) a combination of a coaxial cable and a fiber optic cable* (Gerszberg: see Figure 1E and Figure 12).

Regarding claim 7, *providing the requested communications service comprises transmitting signals via a shared twisted pair* (Gerszberg: see Figure 1E and Figure 10).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Prakash by using the features, as taught by Gerszberg et al., in order to integrated services to customer devices (Gerszberg: see Abstract).

5. Claims 9 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pedersen et al. (US 2004/0062198A1) in view of Prakash (US 2002/0097727 A1).

Pedersen discloses a system for facilitating the aggregation or bonding of physical communications links into higher-bandwidth logical links comprising:

Regarding claim 9, *a method of providing communications services, comprising: configuring a first twisted pair to provide Digital Subscriber Line service to a destination* (Pedersen: see Figures 1A and 1B, link 30 and "FIG. 1A illustrates...a physical link 30" in page 2, sections 0026 and 0027);

configuring a second twisted pair for shared Digital Subscriber Line service, amongst the destination and another destination (Pedersen: see Figures 1A and 1B, link 30 and "FIG. 1A illustrates...a physical link 30" in page 2, sections 0026 and 0027);

transmitting digital subscriber line signals to the destination via the first twisted pair (Pedersen: see Figures 1A and 1B, link 30 and "Physical links 30...twisted-pair cabling" in page 3, sections 0044);

However, Pedersen et al. does not disclose the features: *receiving a request for communications service; when the requested communications service exceeds an available bandwidth of the first twisted pair, then temporarily logically bonding the second twisted pair to the destination to provide additional bandwidth; providing the requested communications service via the logically bonded first twisted pair and the temporarily logically bonded second twisted pair; when the additional bandwidth is not needed, removing the temporary logical bonding of the second twisted pair; and reverting the second twisted pair to its shared configuration, thus allowing the another destination to receive increased bandwidth when required.*

Prakash discloses the utilization of an non-QOS guaranteed network within a communication network to increase bandwidth when necessary comprising:

receiving a request for communications service (Prakash: see Figure 2B and "As illustrated in FIG. 2B...the contents requested by individual viewing location" in page 3, section 0038);

when the requested communications service exceeds an available bandwidth of the first twisted pair, then temporarily logically bonding the second twisted pair to the destination to provide additional bandwidth (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041);

providing the requested communications service via the logically bonded first twisted pair and the temporarily logically bonded second twisted pair (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); and

when the additional bandwidth is not needed, removing the temporary logical bonding of the second twisted pair (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); and

reverting the second twisted pair to its shared configuration, thus allowing the another destination to receive increased bandwidth when required (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 10, *further comprising sharing the same session of information* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 11, *further comprising connecting the second twisted pair and the first twisted pair to the destination, such that first twisted pair and the second twisted pair share the same session of information* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 12, *further comprising transmitting the digital subscriber line signals to the destination via a third twisted pair, the third twisted pair shared amongst the destination and the another destination, the third twisted pair providing more additional bandwidth* (Pedersen: see Figures 1A and 1B, link 30 and "FIG. 1A illustrates...a physical link 30" in page 2, sections 0026 and 0027; see also Figures 8A and 8B).

Regarding claim 13, *further comprising instructing a network device to logically bond the second twisted pair and the first twisted pair when transmitting the digital subscriber line signals to the destination, such that first twisted pair and the second twisted pair share the same session of information* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 14, *further comprising logically bonding n twisted pairs to the first twisted pair when transmitting the digital subscriber line signals to the destination, such that first twisted pair and the n twisted pairs share the same session of information* (Pedersen: see Figures 1A and 1B, link 30 and "FIG. 1A illustrates...a physical link 30" in page 2, sections 0026 and 0027).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Pedersen et al. by using the features, as taught by Prakash, in order to provide additional bandwidth when necessary (Prakash: see Abstract).

Response to Arguments

6. Applicant's arguments with respect to claims 1 - 16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUVENA W. LOO whose telephone number is (571)270-1974. The examiner can normally be reached on Monday - Friday: 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Juvena W Loo/
Examiner, Art Unit 2616
February 27, 2008

/Kwang B. Yao/

Supervisory Patent Examiner, Art Unit 2616